

REMARKS

The specification has been amended by correcting minor typographical errors and replacing the term " CO2 " with -- CO₂ --.

Claim 2 has been deleted and claims 1 and 3-16 have been amended.

The disclosure was objected to because of the following informalities: throughout the specification the term "CO2" should be -- CO₂ -- or to ---carbon dioxide--.

The disclosure has been amended by correcting the term " CO2" to read -- CO₂ --.

Because of the multiplicity of amendments required to correct the disclosure which includes the sections titled: TECHNICAL FIELD, BACKGROUND OF THE INVENTION, DESCRIPTION OF THE RELEVANT ART, SUMMARY OF THE INVENTION, BRIEF DESCRIPTON OF THE DRAWINGS, and DETAILED DESCRIPTION OF THE INVENTION, the corrected sections are resubmitted in their entirety.

Enclosed please find References: Jones, C. K. 2,303,950 and Ginsburgh et al, 6,293,525B1.

Claim 1-16 were objected to because of the following informalities: in each of the claims the term "CO2" should be deleted and/or changed to --CO₂--.

Claim 2 has been canceled and the term "CO2" has been corrected to read --CO₂-- in claims 1 and 3-16.

Claims 1-16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hazbun 4,770,670.

Claim 2 has been canceled and claim 1 and 3-16 are respectfully traversed.

The Hazbun patent (4,770,670) creates an emulsion of diesel fuel and water that is not combustible. In order to retain combustibility, the '670 patent requires that the fuel and water of the emulsion be separated. Additionally, among various selected additives, the '67 patent uses CO₂ to create this emulsion separation. The CO₂ is not maintained within the diesel fuel in this additive process. Instead it reacts chemically with the emulsion water and as a gas is no longer available in the diesel fuel.

The use of CO₂ in the '670 patent is entirely dissimilar to the instant application. In the instant application the CO₂ is used as a part in a non-reactive physical mixture wherein the CO₂ occupies voids between the fuel molecules. Its presence during combustion is to function as an expansion force helping to disperse the adjacent fuel molecules. The CO₂ functions only as a dispersing force ad has no chemical reaction.

Furthermore, the CO₂ as used in the '670 patent chemically reacts with the water and the CO₂ is no longer available to the diesel fuel for any purpose, including all the advantages we cite in the instant application.

In view of the above of the objections and rejections, it is deemed that the Examiners objections and rejections have been overcome. Therefore, the applicant respectfully requests the allowance of claims 1 and 3-16 at an early date.

No additional fee is deemed necessary at this time.

Respectfully submitted,

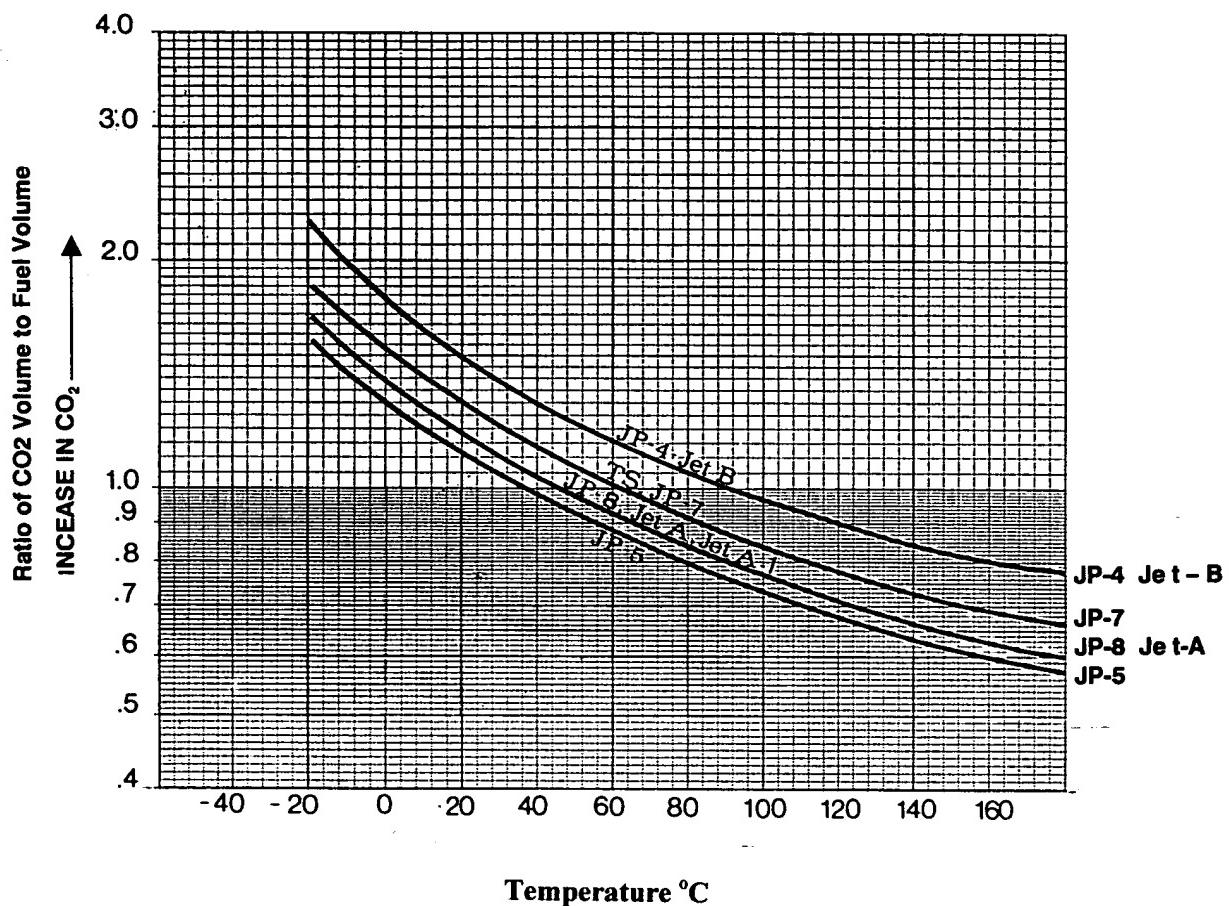

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1/2

Solubility of CO₂ in Jet Fuels With Temperature Change (at Normal Pressure)



Temperature °C

FIG. 1